

REMARKS

As a preliminary matter, it does not appear that the Petition and Amendment for Correction of Inventorship filed on November 4, 2005 has been entered. Accordingly, entry of the Petition and Amendment for Correction of Inventorship, and written confirmation of such entry, is once again respectfully requested. If additional copies of the papers as filed are needed, the Examiner should request Applicants to provide such additional copies in the next communication.

As an additional preliminary matter, Applicants respectfully request entry of this after-final amendment because no new issues requiring further search or consideration are raised by the proposed claim amendments because the proposed amendments are merely a substitution of one definition of a term for another equivalent definition. More specifically, the definitions of "negative retardation" and "retardation in the thickness direction" are the same, as demonstrated in the current Specification by comparing the following definition of "negative retardation," found on page 20, lines 20-24:

"the negative retardation R_m is defined by $R_m = ((n_x + n_y) / 2 - n_z) \cdot d$ where the refractive indexes in an x direction, a y direction and a z direction are n_x , n_y , and n_z , respectively and the optical path length is d"

with the following definition of "retardation in the thickness direction," found on page 61, lines 12-17:

"the retardation in the thickness direction is expressed by $((n_x + n_y) / 2 - n_z) \cdot d$ where the refractive indexes within the plane are n_x , n_y , ($n_x \geq n_y$), the refractive index in the thickness direction is n_z , and the thickness of the film is d."

Accordingly, as shown above, the definitions of "negative retardation" and "retardation in the thickness direction" are both the same (i.e., $((n_x + n_y) / 2 - n_z) \cdot d$).

Further support in the present Specification for the proposed claim amendments can be found in, for example, page 45 (lines 11-25) and in Figures 12-14. More specifically, Figures 12 and 13 show cross-sectional views of a liquid crystal device in which the vertical direction to a surface is indicative of the thickness direction of a compensation layer and a liquid crystal layer. In these drawings, the interface between the air and the compensation layer corresponds to the surface. Figure 14 shows positional relationships between the cross-section of the liquid crystal device and the index ellipsoid of Figures 12 and 13, which indicates that a retardation plate is index ellipsoid having negative refractive index anisotropy and the index ellipsoid has refractive index anisotropy to an incident light in the thickness direction.

Thus, the proposed claim amendments are supported by the original Specification, and merely involve wording changes of substituting one definition of a feature for an equivalent definition of the same feature. Accordingly, for the reasons set forth above, Applicants respectfully request entry and consideration of this after-final amendment.

Claims 11-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,108,064 to Minoura et al. et al. in view of United States Patent No. 6,781,759 to Wakita et al. Applicants respectfully traverse this rejection.

Initially, Applicants maintain and incorporate by reference herein those arguments previously advanced on pages 2 through 6 of Response D, filed May 22, 2007.

Applicants respectfully request that the Examiner reconsider those arguments, and withdraw this §103 rejection. Additionally, Applicants respectfully request that the Examiner consider the following new arguments and expansions upon the previous arguments.

The Minoura et al. reference discloses an optical retardation plate of a quarter-wave ($\lambda/4$) plate or a half-wave ($\lambda/2$) plate. With respect to the quarter-wave ($\lambda/4$) plate, an optical retardation which multiplies birefringence within a plane ($n_x - n_y$) by film thickness d is a quarter of wavelength of the transmitted light. The incident linearly polarized light passing into the quarter-wave ($\lambda/4$) plate is converted into circularly polarized light and is then output.

On the other hand, the retardation plate in the present invention is set up so that a ratio between a retardation R_f which multiplies birefringence in the thickness direction ($(n_x + n_y) / 2 - n_z$) by film thickness d and a retardation R_{lc} which multiplies birefringence of crystal layer ($n_e - n_o$) by layer thickness d , R_f/R_{lc} , is a value of not less than 0.4 nor greater than 0.9.

The Examiner asserts that the portion of “in a vertical direction to a surface” in Claims 11, 12 and 13 of the present application corresponds to the portion of “in a normal direction of the second substrate” in the Minoura et al. reference, and that the claim does not specify the retardation in a direction of the thickness. It seems to be considered that “vertical” and “normal” are the same.

Applicants therefore amended Claims 11-13 as above this time in order to clarify

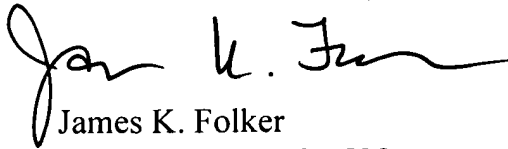
clarify the difference between the present invention and the Minoura et al. reference. The retardation plate of Minoura et al. reference has birefringence in the in-plane direction and has a retardation of $(n_x - n_y) \cdot d$ by passing light through film thickness d . In contrast, the present invention of Claims 11-13 has birefringence in the thickness direction.

As discussed above, the Minoura et al. reference and the Wakita et al. reference do not disclose or suggest the configuration of the present invention. Even the combination of Minoura et al. and Wakita et al. do not disclose or suggest the invention defined in independent Claims 11-13. Accordingly, Applicants respectfully request the withdrawal of this §103 rejection of independent Claims 11-13 and associated dependent Claims 14-16.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference would aid in the prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned attorney.

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